Amendments to the Claims:

1. (Currently Amended) An electro-optical connector comprising:

an electrical port configured to communicate first and second electrical signals into and out of the electro-optical connector; ~~and~~

an optical output port in electrical communication with the electrical port, the optical output port configured to convert the first electrical signals representing a first value of a binary one into first optical signals representing the first value, and convert the second electrical signals representing a second value of a binary zero into second optical signals representing the second value;

a first emitter connected to the optical output port and being configured to emit the first optical signals; and

a second emitter connected to the optical output port and being configured to emit the second optical signals.

2. (Original) The electro-optical connector as set forth in claim 1, further comprising:

an optical input port in electrical communication with the electrical port, the optical input port configured to convert first optical signals representing a first value into first electrical signals representing the first value, and convert second optical signals representing a second value into second electrical signals representing the second value; and

logic configured to permit communication between the electrical port and a selected one of the optical input port and the optical output port.

3. (Original) The electro-optical connector as set forth in claim 2, where the optical input port comprises:

at least one receiver configured to receive a first optical signal representing a first value and to receive a second optical signal representing a second value; and

receive logic configured to convert received first and second optical signals into corresponding first and second electrical signals.

4. (Original) The electro-optical connector as set forth in claim 3, where the receive logic comprises a phototransistor.

5. (Currently Amended) The electro-optical connector as set forth in claim 1, where the optical output port comprises:

transmit logic configured to convert the first and second electrical signals into corresponding first and second identifiably distinct optical signals; and

where the first emitter and the second emitter are ~~at least one emitting device~~ configured to emit the first and second identifiably distinct optical signals, respectively.

6. (Currently Amended) The electro-optical connector as set forth in claim 5, where ~~the at least one emitting device comprises~~:

~~a~~ the first emitter being configured to emit the first identifiably distinct optical signals having a first wavelength ~~in response to received first electrical signals~~; and

~~a~~ the second emitter being configured to emit the second identifiably distinct optical signals having a second wavelength distinct from the first wavelength ~~in response to received second electrical signals~~.

7. (Canceled)

8. (Currently Amended) The electro-optical connector as set forth in claim 1 ~~claim 7~~, where the first optical signals comprise a first wavelength and the second optical signals comprise a second wavelength.

9. (Currently Amended) In a system including at least first and second logic assemblies not in electrical data communication with each other, a connector associated with a first logic assembly comprising:

a connector body mountable to the first logic assembly; and

a transceiver supported by the connector body, the transceiver including:

an electrical path configured to communicate electrical signals to and from the connector to an electrical path on the first logic assembly, and

an optical transmitter configured to selectively transmit one of a first active optical signal representing binary one values derived from an ~~first~~ electrical signal and a second active optical signal representing binary zero values derived from ~~a second~~ the electrical signal where the first and second active optical signals are transmitted by separate transmitters, the transmission directed to a connector on the second logic assembly to establish data communication between the first and second logic assemblies.

10. (Currently Amended) The connector as set forth in claim 9, where the transceiver further comprises:

an electro-optical receiver configured to receive identifiably distinct optical signals from an adjacent optical transmitter from the connector on the second logic assembly, and convert the received distinct optical signals into a corresponding one of first electrical signals and second electrical signals.

11. (Original) The connector as set forth in claim 10, where the electrical path is configured for changeable electrical signal communication to one of the optical transmitter and the electro-optical receiver.

12. (Currently Amended) The connector as set forth in claim 9, where the ~~optical transmitter comprises~~ separate transmitters comprise:

a first transmitter configured to transmit the first active optical signal ~~corresponding to the first electrical signal~~; and

a second transmitter configured to transmit the second active optical signal ~~corresponding to the second electrical signal~~.

13. (Currently Amended) The connector as set forth in claim 9, where the optical transmitter comprises:

a transmitter configured to selectively transmit ~~one of an~~ the first active optical signal having first identifiable characteristics and ~~an~~ the second active optical signal having second identifiable characteristics.

14. (Original) The connector as set forth in claim 13, where the identifiable characteristics comprise wavelength.

15. (Original) The connector as set forth in claim 9, where the optical transmitter comprises a light emitting diode.

16. (Original) The connector as set forth in claim 10, where the electro-optical receiver comprises:

a first photo-transistor configured to convert first optical signals into first electrical signals; and

a second photo-transistor configured to convert second optical signals into second electrical signals.

17. (Original) The connector as set forth in claim 10, where the electro-optical receiver comprises:

a photo-transistor configured to convert received optical signals having a first wavelength into first electrical signals and to convert received optical signals having a second wavelength into second electrical signals.

18. (Original) The connector as set forth in claim 9, further comprising:

an orientation mechanism associated with the optical transmitter and configured to establish an optical signal path from the optical transmitter to an electro-optical receiver disposed on the second logic assembly.

19. (Canceled)

20. (Original) An apparatus for transferring signals between assemblies in a computer system; the apparatus comprising on a first assembly:

a first optical transmitter configured to transmit an optical signal in response to receipt of a first electrical signal representing a binary value, where the first optical transmitter is

configured for optical communication with a corresponding optical receiver disposed on a second assembly;

a second optical transmitter configured to transmit an optical signal in response to receipt of a second electrical signal representing a different binary value, where the second optical transmitter is configured for optical communication with a corresponding optical receiver disposed on the second assembly;

a first optical receiver optically isolated from the transmitters, the first optical receiver configured to receive an optical signal representing the binary value from a corresponding optical transmitter disposed on the second assembly and convert the received optical signal into an electrical signal representation of the binary value; and

a second optical receiver optically isolated from the transmitters, the second optical receiver configured to receive an optical signal representing the different binary value from a corresponding optical transmitter disposed on the second assembly and convert the received optical signal into an electrical signal representation of the different binary value.

21. (Original) The apparatus as set forth in claim 20, further comprising:

an electrical port in electrical communication with the first assembly; and

anti-contention means for preventing the electrical port from attempting to drive an electrical signal when another electrical signal is present at the electrical port.

22. (Currently Amended) A method comprising:

converting outbound electrical signals communicated into an electro-optical connector into optical signals <u>that are separated by binary value</u> and optically communicating the optical signals from the electro-optical connector <u>using separate optical transmitters based on binary value of the optical signals</u>;

converting optical signals communicated into the electro-optical connector into inbound electrical signals and electrically communicating the inbound electrical signals from the electro-optical connector; and

permitting a selected one of either the converting outbound electrical signals or the converting optical signals at a time.

23. (Currently Amended) ~~The~~ A method ~~as set forth in claim 22, where the permitting comprises~~ comprising:

converting outbound electrical signals communicated into an electro-optical connector into optical signals and optically communicating the optical signals from the electro-optical connector;

converting optical signals communicated into the electro-optical connector into inbound electrical signals and electrically communicating the inbound electrical signals from the electro-optical connector; and

permitting a selected one of either the converting outbound electrical signals or the converting optical signals at a time by presenting high impedance between an electrical port and one of an optical input port and an optical output port when an electrical signal is present between the electrical port and the other of the optical input port and the optical output port.

24. (New) A system for connecting a first logic device with a second logic device where the first logic device communicates using a first electrical signal and the second logic device communicates using a second electrical signal that has different electrical properties than the first electrical signal, the system comprising:

a first electro-optical connector connected to the first logic device and being configured to convert the first electrical signal into optical signals, the first electro-optical connector including:

an optical output port configured to transmit the optical signals using a first emitter to transmit signals representing binary one values from the optical signals and using a second emitter to transmit signals representing binary zero values from the optical signals; and

a second electro-optical connector connected to the second logic device and being configured to convert received optical signals into the second electrical signal, the second electro-optical connector including:

an optical input port being configured to receive the optical signals from the optical output port using a first detector to detect the binary one values and using a

second detector to detect the binary zero values, the second electrical signal being formed from a combination of the binary one values and the binary zero values.

25. (New) The system of claim 24,

the second electro-optical connector further including an optical output port configured to transmit optical signals from the second logic device to the first logic device; and

the first electro-optical connector further including an optical input port for receiving the optical signals transmitted from the second logic device.

26. (New) The system of claim 25, the first electro-optical connector including an anti-contention logic configured to selectively disable the optical input port or the optical output port.

27. (New) The system of claim 24, the optical input port of the second logic device being mounted adjacent to the optical output port of the first logic device to establish optical communication therebetween.